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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,437	12/18/2001	Mehdi Frederik Soltan	M-12367 US	6542

7590 08/09/2004

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EXAMINER

JONES, STEPHEN E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/025,437	Applicant(s) SOLTAN ET AL.	
	Examiner Stephen E. Jones	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-13,15-26 and 32-45 is/are pending in the application.
- 4a) Of the above claim(s) 1-5,15-26 and 33-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-13 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-5,8-13,15-26 and 32-45 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims remain 1-5, 15-26, and 33-45 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9/16/03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8-10, 12, and 32 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Singh et al. (of record).

Singh (Figs. 4-6) teaches an amplifier integrated circuit including: a chip/die (42) having an output port on the chip connected to a bondwire (e.g. 62) that is connected to an external conductor (e.g. 3); various capacitors are also included with the wires to form an on-chip output impedance matching circuit (i.e. matching to the load by means of the impedance characteristics of the elements) (see Col. 2, lines 5-7); capacitor (CB2 and C6 in Fig. 5) is connected between the output port and ground (Claims 8 and 32); the device operates at microwave frequencies (see Col. 2, lines 43-45) which are in the

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RF frequency spectrum and is for power amplifiers (e.g. see the abstract) (Claim 9); it is also inherent that the bondwire, the capacitor and load impedance are jointly operable to resonate at the operating frequency in the same manner as the present invention, because otherwise the signal would not pass properly to the output (Claim 10); and Singh teaches MESFET's with GaAs (e.g. see Col. 4, lines 10-13) (claim 12).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. in view of Raab (both of record).

Singh teaches an amplifier device as described above. However, Singh does not explicitly teach that the MESFET device can be alternatively made as a MOS device (Claim 11) or bipolar device (Claim 13).

Raab (Col. 13, lines 36-40) teaches that amplifiers can be alternatively implemented from MESFET's, MOSFET's, or bipolar transistors.

Thus, it would have been considered obvious to one of ordinary skill in the art to have substituted a MOSFET or bipolar transistor (such as suggested by Raab) in place of the MESFET in the Singh circuit device, because it would have been considered a mere substitution of art-recognized alternative/equivalent semiconductor means for an amplifier circuit.

Response to Arguments

7. Applicant's arguments filed 5/18/04 have been fully considered but they are not persuasive.

Applicant argues that Singh does not teach that the bondwire connects to an output port, that the bondwire and capacitor are operable to impedance match, or that the Singh capacitor (C6) is on the chip.

Applicant's arguments are not convincing. Regarding connecting to the output port, LP1 is clearly connected to the output through the high frequency circuit, and also a second inductive portion is shown connected directly to the output and to the matching capacitor C6 (e.g. see Fig. 5). Furthermore, Fig. 6 also shows that the wire 62 is outputted from the chip when following the circuit path from the input to the node 2. Regarding the argument that the capacitor is not on the chip and regarding matching,

Singh clearly teaches that the impedance matching circuit is completely on the chip (e.g. see Col. 2, lines 5-6), and also teaches that the capacitor (C6) is part of the matching circuit (e.g. see Col. 4, lines 55-58).

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

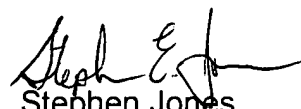
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 571-272-1762. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephen Jones
Patent Examiner
Art Unit 2817

SEJ